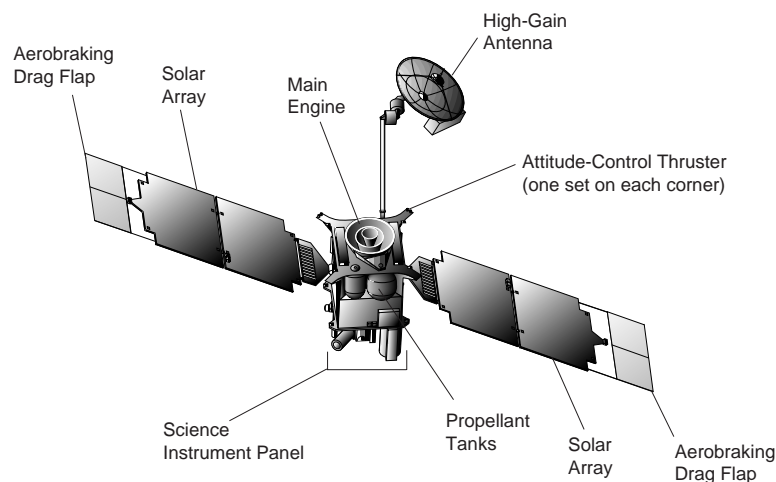


MARS GLOBAL SURVEYOR

Mission Overview

Mars Global Surveyor was launched on November 7, 1996, and entered a highly elliptical orbit around the Red Planet on September 11, 1997. The original mission plan called for using friction with the planet's atmosphere to reduce the orbit's size, leading to a two-year mapping mission from close circular orbit beginning in March 1998. Owing to difficulties with one of the two solar panels, aerobraking — the process of circularizing the spacecraft's orbit — has been extended to March 1999. Although global mapping will not begin until then, extensive scientific observations of Mars' northern hemisphere will be made from April to September 1998 during the science phasing orbit.

During mapping operations, Mars Global Surveyor will circle the planet every two hours and will collect scientific data on an uninterrupted basis for 687 Earth days. Scientific instruments and experiments include a camera, laser altimeter, thermal emission spectrometer, magnetometer, and radio science. Data from these instruments will provide investigators with an unprecedented amount of information regarding the surface features, mineral distribution, magnetic properties, and atmosphere of Mars.



The Mars Surveyor Program

Mars Global Surveyor is the first venture in the National Aeronautics and Space Administration's (NASA's) Mars Surveyor Program, a new series of missions to explore the Red Planet. The Mars Surveyor Program will launch orbiters and landers every 25 months over the next decade, using advanced technology to develop a comprehensive portrait of Mars.

By studying Mars, the most likely planet for future human expeditions, scientists hope to better understand the formation and evolution of Earth and the inner solar system. This effort — which is affordable, engaging to the public, and of high scientific value — will infuse science, mathematics, and engineering into our nation's educational system. International participation and collaboration further enhance the value of the Mars Surveyor Program.

The Jet Propulsion Laboratory (JPL), a division of the California Institute of Technology, manages Mars Global Surveyor and the Mars Surveyor Program for NASA's Office of Space Science. JPL, NASA's lead center for automated space exploration, provides mission design and navigation, and manages mission operations.

A 34-meter antenna subnetwork of NASA's Deep Space Network tracks and acquires data from all the Mars spacecraft. Lockheed Martin Astro-nautics is the industrial partner for the Surveyor program.



National Aeronautics and
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MARS GLOBAL SURVEYOR: MISSION OVERVIEW

